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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/720,463	07/03/2001	Daniel Gens	(H)99DGE1538	2360

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EXAMINER	
LESPERANCE, JEAN E	
ART UNIT	PAPER NUMBER
2629	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/720,463	GENS, DANIEL	
	Examiner	Art Unit	
	Jean E Lesperance	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 September 2007* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14 and 17-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14 and 17-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *7-3-2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. The amendment filed September 14, 2007 is entered and claims 1-14 and 17-25 are pending.

Response to Arguments

2. Applicant's arguments with respect to claims 1-14 and 17-25 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 17, and 21 are rejected under 35 U.S.C. 102(b) as being unpatentable over USPN 5,661,506 ("Lazzouni et al.").

Regarding claim 1, Lazzouni et al. teach an information recording system includes a writing paper having a writing surface and a prerecorded invisible pattern of pixels associated with the writing surface. Each of the pixels contains encoded, optically readable position information which identifies a coordinate position on the writing surface. The system includes a pen, having an instrument for writing on the writing surface, and an imaging system for providing image signals representative of images of the pixels near the pen tip when the tip is in contact with the surface (abstract), wherein the writing instrument being Pen Fig.1 (22) and the writing pad being the encoded paper

Fig.1 (14), and wherein Fig.9 shows different identifiers related to different information encoded in the pad or encoded paper (14) where the encoded paper is passive and is encoded with a pattern of pixels which contain absolute position information, and wherein 8 encoding squares are reserved for the X-coordinate of the pixel on the paper, 8 encoding squares are reserved for the Y-coordinate of the pixel on the paper and 4 encoding squares are reserved for pixel orientation. The remaining encoding squares are reserved for page or pad number, or any other desired information (column 7, lines 56-62), wherein the bit sequence which specifies the identifier for a specific form being the remaining encoding squares are reserved for page or pad number, or any other desired information, and wherein the pen can be moved at speeds of up to 4-7 inches per second. The imaging system may comprise a light source and a video camera, each of which can be located in the pen or in the recording/processing unit. When the light source or the video camera is located in the recording/processing unit, it is optically connected to the pen through optical fibers. Alternatively, the pen can be detached from the recording/processing unit, with wireless RF or optical communication of the image signals to the recording/processing unit (column 4, lines 27-36) corresponding to the pen being the optoelectronic receiver for picking up the area coding designed markings on said writing pad.

Regarding claim 17, Lazzouni et al. teach an information recording system includes a writing paper having a writing surface and a prerecorded invisible pattern of pixels associated with the writing surface. Each of the pixels contains encoded, optically readable position information which identifies a coordinate position on the writing

surface. The system includes a pen, having an instrument for writing on the writing surface, and an imaging system for providing image signals representative of images of the pixels near the pen tip when the tip is in contact with the surface (abstract), wherein the writing instrument being Pen Fig.1 (22) produces is a two-dimensional image and the writing pad being the encoded paper Fig.1 (14), and wherein Fig.9 shows different identifiers related to different information encoded in the pad or encoded paper (14) where the encoded paper is passive and is encoded with a pattern of pixels which contain absolute position information, and wherein 8 encoding squares are reserved for the X-coordinate of the pixel on the paper, 8 encoding squares are reserved for the Y-coordinate of the pixel on the paper and 4 encoding squares are reserved for pixel orientation. The remaining encoding squares are reserved for page or pad number, or any other desired information (column 7, lines 56-62), wherein the bit sequence which specifies the identifier for a specific form being the remaining encoding squares are reserved for page or pad number, or any other desired information, and wherein the pen can be moved at speeds of up to 4-7 inches per second. The imaging system may comprise a light source and a video camera, each of which can be located in the pen or in the recording/processing unit. When the light source or the video camera is located in the recording/processing unit, it is optically connected to the pen through optical fibers. Alternatively, the pen can be detached from the recording/processing unit, with wireless RF or optical communication of the image signals to the recording/processing unit (column 4, lines 27-36) corresponding to the pen being the optoelectronic receiver for picking up the area coding designed markings on said writing pad.

Regarding claim 21, Lazzouni et al. teach an information recording system includes a writing paper having a writing surface and a prerecorded invisible pattern of pixels associated with the writing surface. Each of the pixels contains encoded, optically readable position information which identifies a coordinate position on the writing surface. The system includes a pen, having an instrument for writing on the writing surface, and an imaging system for providing image signals representative of images of the pixels near the pen tip when the tip is in contact with the surface (abstract), wherein the writing instrument being Pen Fig.1 (22) and the writing pad being the encoded paper Fig.1 (14), and wherein Fig.9 shows different identifiers related to different information encoded in the pad or encoded paper (14) where the encoded paper is passive and is encoded with a pattern of pixels which contain absolute position information, and wherein 8 encoding squares are reserved for the X-coordinate of the pixel on the paper, 8 encoding squares are reserved for the Y-coordinate of the pixel on the paper and 4 encoding squares are reserved for pixel orientation. The remaining encoding squares are reserved for page or pad number, or any other desired information (column 7, lines 56-62), wherein the bit sequence which specifies the identifier for a specific form being the remaining encoding squares are reserved for page or pad number, or any other desired information, and wherein the pen can be moved at speeds of up to 4-7 inches per second. The imaging system may comprise a light source and a video camera, each of which can be located in the pen or in the recording/processing unit. When the light source or the video camera is located in the recording/processing unit, it is optically connected to the pen through optical fibers. Alternatively, the pen can be detached from

the recording/processing unit, with wireless RF or optical communication of the image signals to the recording/processing unit (column 4, lines 27-36) corresponding to the pen being the optoelectronic receiver for picking up the area coding designed markings on said writing pad.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2-11, 14, 18-20, 22-25 are rejected under 35 U.S.C. 103 (a) as being unpatentable over USPN 5,661,506 ("Lazzouni et al.") in view of USPN 6,130,666 ("Persidsky").

Regarding claim 2, Lazzouni et al. fail to teach characterized in that the apparatus contains first means for continuously determining the position of the writing instrument on the writing pad relative to a starting position for setting down the information, and second means for continuous absolute determination of the position of the writing instrument on the writing pad.

However, Persidsky teaches the user repositions cursor 50 to any position in display 24 by moving writing tip 12 and at the same time not activating pressure sensor 14 or erase button 38 (first means or absolute position), the user can move writing tip 12 along a surface to reposition cursor 50 or, because the preferred embodiment utilizes accelerometers for the movement sensor 16, writing tip 12 can be moved

through the air as a means to repositioning cursor 50 (second means or relative position) (column 5, lines 51-58) and it is understood that once the writing tip is in the air it is converted from two-dimensional to three-dimensional and becomes faster because it does not have to deal with friction of a writing surface. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the moving writing tip as taught in the system of Lazzouni et al. because this would provide a self-contained pen computer which allows its user to record multiple handwritten images of any form in the pen's memory.

Regarding claim 3, Persidsky teaches the user repositions cursor 50 to any position in display 24 by moving writing tip 12 and at the same time not activating pressure sensor 14 or erase button 38 (first means or absolute position), the user can move writing tip 12 along a surface to reposition cursor 50 or, because the preferred embodiment utilizes accelerometers for the movement sensor 16, writing tip 12 can be moved through the air as a means to repositioning cursor 50 (second means or relative position) (column 5, lines 51-58) and it is understood that once the writing tip is in the air it is converted from two-dimensional to three-dimensional and becomes faster because it does not have to deal with friction of a writing surface. Same motivation as claim 2.

Regarding claim 4, Persidsky teaches accelerometers 21 and 23 are oriented perpendicularly to each other in the same plane to sense acceleration in at least two perpendicular directions in a plane, the X and Y directions. Accelerometer 25 is oriented perpendicularly to that plane to sense acceleration in the Z direction (column 3, lines 59-64), the user moves writing tip 12, cursor 50 moves in a direction and by a distance

directly corresponding to the movement of writing tip 12 (column 5, lines 16-25-27). Same motivation as claim 2.

Regarding claim 5, Persidsky teaches the transmitter could use infra red or radio frequency transmission means (column 6, lines 54 and 55). Same motivation as claim 2.

Regarding claim 6, Persidsky teaches processor and image memory Fig.3 (22 and 40). Same motivation as claim 2.

Regarding claim 7, Persidsky teaches the transmitter could use infra red or radio frequency transmission means (column 6, lines 54 and 55). Same motivation as claim 2.

Regarding claim 8, Persidsky teaches Accelerometers 21 and 23 are oriented perpendicularly to each other in the same plane to sense acceleration in at least two perpendicular directions in a plane, the X and Y directions. Accelerometer 25 is oriented perpendicularly to that plane to sense acceleration in the Z direction (column 3, lines 59-64) and the distance determination program integrates the digitized acceleration signals from movement sensor 16 to determine distance (column 3, lines 11-13). Same motivation as claim 2.

Regarding claim 9, Persidsky teaches a processor (40) corresponding to a computer, image memory 22 to preserve any collected data. Same motivation as claim 2.

Regarding claim 10, Persidsky teaches Program memory 26 also holds all the software necessary for processor 40 to perform all pen computer functions such as

acquiring, storing, displaying, editing, and recognizing handwritten data, as well as controlling the user interface (column 4, lines 20-23). Same motivation as claim 2.

Regarding claim 11, Persidsky teaches a self-contained pen computer Fig.1 which is portable just like a watch or an electronic notebook. Same motivation as claim 2.

Regarding claim 14, Persidsky teaches a image memory (22) which is a buffer. Same motivation as claim 2.

Regarding claim 18, Persidsky teaches a pressure sensor in said writing tip and connected to said processor for sensing engagement with a writing surface (column 8, lines 63-65). It is inherent in the writing surface art to have a form of magnetic layer and a linear or non-linear magnetic array to facilitate the writing pen to conduct with the surface. Same motivation as claim 2.

Regarding claim 19, Persidsky teaches a pressure sensor in said writing tip and connected to said processor for sensing engagement with a writing surface (column 8, lines 63-65). It is inherent in the writing surface art to have a form of magnetic layer and a linear or non-linear magnetic array to facilitate the writing pen to conduct with the surface. Same motivation as claim 2.

Regarding claim 20, Persidsky teaches the user moves writing tip 12, cursor 50 moves in a direction and by a distance directly corresponding to the movement of writing tip 12. This is analogous to moving a pointer or cursor across a computer screen using a mouse, roller ball, accupoint, or track pad input device (all in two-dimensional) (column 5, lines 25-29), the pen computer has predefined fields into which handwritten

data can be entered. As shown in FIG. 7, these fields appear as printed text characters or symbols on the left side of the rows in display 24 and handwritten data appears to the right of each field (column 6, lines 23-27). Same motivation as claim 2.

Regarding claim 22, Persidsky teaches Processor 40 is used to process digitized movement signals to determine the distance and direction writing tip 12 has moved in a given time in order to track the handwritten pattern as it is being drawn. Processor 40 uses a direction detection and distance determination program in a program memory 26 to determine the distance and direction writing tip 12 has moved in a given time. The distance determination program integrates the digitized acceleration signals from movement sensor 16 to determine distance (column 4, lines 4-15). Same motivation as claim 2.

Regarding claim 23, Persidsky teaches the user repositions cursor 50 to any position in display 24 by moving writing tip 12 and at the same time not activating pressure sensor 14 or erase button 38 (first means or absolute position), the user can move writing tip 12 along a surface to reposition cursor 50 or, because the preferred embodiment utilizes accelerometers for the movement sensor 16, writing tip 12 can be moved through the air as a means to repositioning cursor 50 (second means or relative position) (column 5, lines 51-58) and it is understood that once the writing tip is in the air it is converted from two-dimensional to three-dimensional and becomes faster because it does not have to deal with friction of a writing surface. Same motivation as claim 2.

Regarding claim 24, Persidsky teaches accelerometers 21 and 23 are oriented perpendicularly to each other in the same plane to sense acceleration in at least two

perpendicular directions in a plane, the X and Y directions. Accelerometer 25 is oriented perpendicularly to that plane to sense acceleration in the Z direction (column 3, lines 59-64), the user moves writing tip 12, cursor 50 moves in a direction and by a distance directly corresponding to the movement of writing tip 12 (column 5, lines 16-25-27). Same motivation as claim 2.

Regarding claim 25, Persidsky teaches the overall process of drawing and erasing handwritten data in display 24 is similar to drawing and erasing with a mouse in a computer paint program (column 6, lines 5-7) and these fields appear as printed text characters or symbols on the left side of the rows in display 24 and handwritten data appears to the right of each field (column 6, lines 25-27) corresponding to said data comprises at least one of written text and a drawing. Same motivation as claim 2.

5. Claims 12 and 13 are rejected under 35 U.S.C. 103 (a) as being unpatentable over USPN 5,661,506 ("Lazzouni et al.") in view of USPN 5,294,792 ("Lewis et al.").

Regarding claim 12, Lazzouni et al. fail to teach a password and an identification number.

However, Lewis et al. teach an external mode switch may be employed by the user to turn "on" the pen computer, after which the user may write a programmable password (or pass-symbol) for the pen to become fully operational and then write a number, letter, and/or short phrase to shift the pen computer into the desired mode of operation (column 6, lines 45-51) and the general purpose processor may control the communications protocol employed by the transmitter. For example, in one mode the

transmitter might transmit a packet of data with a unique user identification "number" at the start and/or end of each packet (column 6, lines 64-68).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the password and identification number as taught by Lewis et al. in the pen disclosed by Lazzouni et al. because this would allow special users to get access to the database.

Regarding claim 13, Lewis et al. teach the pen computer of the present invention may be "pointed at" the user's host computer which includes therein a receiver compatible with a transmitter also included in the pen computer. Alternatively, once the memory is nearly full, or full, the pen may automatically download the stored data to the host

computer; this may require a "hand-shake" type of communications protocol to ensure the host computer receives the data as it is sent. The user's host computer may be a PC, a minicomputer, a main frame, a portable, or a laptop computer. The transmitter in the pen will then transmit to the receiver of the host computer a serial stream of data corresponding to the recognized or compacted characters stored in the recognized memory. The data is preferably transmitted using a high message content protocol. The host computer may then display these characters on its screen display, perform certain operations on the data as it is received and display the results on the display screen, route the data to an internal memory associated therewith, or any combination of these actions (column 4, lines 38-58). Same motivation as claim 12.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Lesperance whose telephone number is (571) 272-7692. The examiner can normally be reached on from Monday to Friday between 10:OOAM and 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on (571) 272-7691.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(571) 273-8300 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Jean Lesperance

Jean Lesperance

Art Unit 2629

Date 9/26/2007

RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600